

Region 4 Environmental Finance Center

AT THE UNIVERSITY OF NORTH CAROLINA AT
CHAPEL HILL



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BACKGROUND & SUMMARY

The Environmental Finance Center at the University of North Carolina at Chapel Hill (known as the UNC EFC) works with local communities and government agencies throughout the eight states of the U.S. Environmental Protection Agency's (EPA's) Region 4 (Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Alabama, Mississippi, and Florida). Its purpose is to address environmental management challenges by developing innovative financial management and environmental policy strategies and systems. The UNC EFC assists communities by "providing a bridge between students and faculty in the university who work principally on environmental financing, management, and planning tools, and the governments and businesses whose job it is to use those tools for the public interest." It receives its core support from EPA and University of North Carolina at Chapel Hill.

The UNC EFC is one of a network of university-based centers that concentrates on problems in financing of environmental services. It was created in 1998 as a joint venture between the Institute of Government and the Office of Economic Development, both at UNC-Chapel Hill, and is one of two EFCs in Region 4. Faculty and students working with the UNC EFC concentrate on helping improve the financing and delivery of environmental goods and services by local governments.

In 2005, the UNC EFC focused its attention on providing training, workshops, presentations, and other forms of technical assistance to groups, such as small water utilities, and 14 individual communities. The EFC focused heavily on building the capacity of training providers throughout the region and thus worked collaboratively with many other organizations, particularly with the states of Florida, Georgia, Mississippi, and North Carolina. Its conference pre-

REGION 4



sentations focused on capital finance strategies; wastewater, stormwater, and agriculture issues; fundraising and collaboration; easement and contract language; and disadvantaged communities. The EFC also spoke to various audiences on such matters as working with local governments on source water protection projects and how to communicate information about rates.

In its work with the individual communities, the UNC EFC worked towards improving a failing water system, expanding a sewer system, selecting a new consultant for a rate study, examining elements of financial policies, evaluating landfill franchise issues and landfill fees, proposing new ideas for a failing septic system, developing a business plan, and starting a regional water and sewer initiative.

The EFC also devised various other related activities during the year, such as designing a new course on the management and funding of local government stormwater program, carrying out a survey of water and sewer rates in North Carolina, working to improve water operator retention in North Carolina and Georgia, printing a series of financial resource materials, and drafting and reviewing comments on a model stormwater ordinance for North Carolina.

ACTIVITIES & ACCOMPLISHMENTS



Completed Projects & Initiatives

FINANCIAL MANAGEMENT GUIDE AND BOARD TRAININGS:

The Mississippi-based Southeast Regional Small Public Water Systems Technical Assistance Center (SETAC) awarded funding to the UNC EFC to provide financial planning assistance to small water utilities. As part of that effort, the EFC developed a detailed water utility financial management guide that targets individuals that sit on governing boards responsible for drinking water service. The guide focuses on the legal and financial obligations and expectations assigned to these boards under U.S. and North Carolina law (many financial management and rate-setting responsibilities are based on state law) and serves as the basis for statewide board trainings that provide financial planning assistance to small water



utilities in North Carolina with funds from SETAC. Over the year, the EFC completed three five-hour, individualized board trainings for the following communities in North Carolina:

- Gibson and Wagram, January 18, 2005
- Handy Sanitary District, February 9, 2005
- Pine Knoll Shores, February 23, 2005



- Davidson Water, Inc., March 11, 2005
- Woodfin Sanitary District, March 28, 2005
- Navassa, April 21, 2005

The UNC EFC also finalized and printed a series of financial resource materials, including a detailed water utility financial management guidebook, Financial Leadership for Water Utility Boards. The guidebook was designed for use in workshops attended by individuals that sit on governing boards responsible for drinking water service. To access the guidebook and other materials, visit www.efc.unc.edu/projects/WaterLeadership.htm.

STORMWATER ORDINANCE:

The North Carolina Division of Water Quality retained the UNC EFC to help develop the state's model stormwater ordinance. In 2005, the UNC EFC finished drafting and reviewing comments on the model stormwater ordinance. Local governments in the state will use the final version of the model ordinance to develop a post-construction program that best fits their long-term growth and fiscal needs and that complies with the requirements of Phase II stormwater regulations. For more information on the model stormwater ordinance, visit www.efc.unc.edu/projects/stormwater.htm.

ACTIVITIES & ACCOMPLISHMENTS

WEB SITE AND PUBLICATIONS:

The UNC EFC has several key publications available on its Web site:

- *The Painful Art of Setting Water and Sewer Rates*, an article by Jeff Hughes (downloaded more than 600 times)
- Phase II Stormwater Model Ordinance for NC (downloaded more than 475 times)
- Water and Sewer Needs and Capital Finance Strategies in Appalachia (downloaded more than 300 times)

Other publications available from the UNC EFC include:

- *Comparison of Drinking Water State Revolving Fund (DWSRF) Programs and Other Federal Assistance to Disadvantaged Communities in EPA Region 4*
- *One Person's Trash is Another's Treasure: What Landfill Capacity Statistics Mean to Different Levels of Government*

In 2005, the UNC EFC...

- ◆ Delivered 50 presentations, trainings, and facilitated discussions in many states.
- ◆ Distributed about 200 hard copies of the *Financial Management Guide* and Board Trainings to local governments.
- ◆ Made key documents accessible on its Web site that were downloaded in excess of 600 times.
- ◆ Attracted 425 members to listservs for local water managers and operators created in June 2005.
- ◆ Provided direct technical assistance to at least 14 communities in the states of Florida, Georgia, and North Carolina.

- *Defining Affordability: Targeting Federal Funds to Improve Water Quality to "Disadvantaged Communities" in North Carolina*
- *Examination of the Relationships Between Public Funding for Water and Sewer Infrastructure and Indicators of Need in the Appalachian Region*
- *Multi-level Financial Analysis of Residential Water and Wastewater Rates and Rate-Setting Practices in North Carolina*

Ongoing Projects & Initiatives

COLLABORATIVE ACTIVITIES

The UNC EFC focuses heavily on building the capacity of training providers throughout Region 4. As a result, most of the EFC's work is done in partnership with other organizations, particularly in Florida, Georgia, Mississippi, and North Carolina. In 2005, the UNC EFC collaborated with approximately 15 other organizations. These partner organizations are listed throughout this report where the specific project is described. The following two examples are 2005 collaboration efforts within the Environmental Finance Center Network itself:

Maine Asset Management Course

The UNC EFC helped the New England EFC run an asset management workshop for a group of Maine utilities. The workshop provided these utilities with a forum to share asset management information, practices, and views, and served to identify the most pressing financial, legal, and political obstacles to implementing advanced asset management techniques.

Rate-Setting Training for Southeast Rural Communities Assistance Partnership (SE RCAP):

The UNC EFC and the MD EFC held a rate-setting training workshop for staff and two Florida communities in Gainesville during the month of June.

ACTIVITIES & ACCOMPLISHMENTS

PRESENTATION, CONFERENCES AND MEETINGS

Capital Finance Strategies for Water and Wastewater Utilities

This course took place at the UNC School of Government in January. It was designed to provide approximately 30 utility practitioners with new skills and up-to-date information on capital finance planning strategies and funding resources. Courses included:

- New Trends and Development in Capital Finance and Budgeting
- Case Studies of Successful Capital Financial Planning
- Capital Planning Techniques and Tools
- Update on Available Finance Sources
- Techniques for Including Capital Costs in Rates and Fees

Water and Wastewater Capital Planning for Budgeting Staff

In January, the UNC EFC presented a session during a UNC School of Government/Capital Budgeting Course for finance directors, budget directors, and management on water and wastewater finance issues.



Water Resources for Local Government Officials

In February, the UNC EFC presented an overview session during another UNC School of Government course for municipal and county officials on water, wastewater, and stormwater.

Regional Water and Sewer Initiatives Workshop

During the Annual North Carolina City and County Managers Conference, the UNC EFC organized and presented at a four-hour intensive workshop on water and wastewater issues.

Basic Training for New Soil and Water Supervisors

In February, the UNC EFC assisted in course preparation and gave an oral presentation on water and agriculture issues as part of this conference.

Water 2030 Advisory Committee

Throughout the year, the center has served on the general advisory committee to the Water 2030 statewide water planning effort. This committee works to assess water and sewer needs in the state of North Carolina. The center also served on a specific task force to strengthen the operation of North Carolina water and sewer facilities and to develop a work plan of capacity building tasks.

Stormwater Model Ordinance Stakeholders

The EFC held a discussion to solicit input on a draft model stormwater ordinance that the center had prepared.

Stormwater Western Council of Governments meeting

At a meeting in Asheville, North Carolina, the EFC met with stakeholders from western North Carolina on stormwater concerns.

Mountain Land Trust Joint Fundraising

The EFC traveled to Asheville, North Carolina to facilitate a discussion of models for joint fundraising and collaboration among North Carolina mountain land trusts in January.

ACTIVITIES & ACCOMPLISHMENTS

Conservation Reserve Enhancement Program (CREP) Forestry Management Working Group

EFC staff advised stakeholders on easement and contract language to resolve disputes centering on the use of Clean Water Management Trust Fund money for CREP easements.

Perquimans County, North Carolina Water System

The EFC participated in detailed discussions about options for developing a water system large enough to accommodate a new subdivision in this county.

North Carolina Disadvantaged Community Program

The UNC EFC met with the North Carolina State Revolving Fund (SRF) coordinator to present information on disadvantaged community programs in other states in an effort to encourage the state to establish a disadvantaged community program. UNC EFC prepared an inventory of other programs in other Region 4 states and a cash flow model. For more information, see <www.efc.unc.edu/projects/DisadvCommunities.htm>.

North Carolina Environmental Cleanup Liability Reform Stakeholder Meeting

In January, the UNC EFC met with stakeholders to review draft legislation, refine legislation, and produce a bill that addressed consistency issues in environmental cleanup liability programs. For innocent landowners and prospective purchasers, the bill would make defenses to environmental cleanup liability consistent across all cleanup programs.

North Carolina Department of Environment and Natural Resources (NC DENR) Collection System Permit Capital Improvements Planning (CIP) Trainings

In April, in Raleigh, North Carolina, the UNC EFC presented two CIP trainings for NC DENR. Twenty participants attended the session, each representing communities applying for collection system permits. (New North Carolina law requires these communities to complete a CIP in order to obtain a permit.)

Land Trust Assembly

The EFC made a presentation at a land trust summit in Guilford County, North Carolina, and facilitated a discussion for about 110 attendees on joint fundraising and other collaborative efforts of 23 North Carolina land trusts.

North Carolina Water Operators Board

Jeff Hughes, director of the UNC EFC, has been serving on the North Carolina Water Operators Board and providing the board with guidance on water operator certification issues. The board's objective is to ensure that North Carolina facilities have qualified water operators.

Economic Subcommittee of the Environmentally Superior Hog Waste Technology Determination Advisory Committee

Richard Whisnant, senior advisor to the UNC EFC, became the chair of this committee. In this capacity, he continued to facilitate economic feasibility advice to the designee who had to decide what, if any, better hog waste technology should be used in North Carolina.

Protecting Your Drinking Water at Its Source

The EFC co-sponsored this drinking water workshop in Greensboro, North Carolina. EFC Director Jeff Hughes led a session on strategies and tips for organizations interested in working on source water protection projects with local governments.

North Carolina Section of the American Water Works Association and the Water Environment Association (AWWA/WEA) Customer Service Seminar

The EFC delivered a presentation in Wilmington, North Carolina, on how to communicate information about rates to clients at a workshop teaching utility managers and customer service professionals new ways to address the challenges in dealing with customers.

ACTIVITIES & ACCOMPLISHMENTS

Resource Enhancement, North Carolina Division of Marine Fisheries

The EFC assisted the North Carolina Division of Marine Fisheries by exploring the financial aspects of a Senate Bill on recycling oyster shells. The EFC delivered a memo to the division examining the cost of recycling oyster shells from large private companies in North Carolina.

Environmental Financial Advisory Board (EFAB)

In August, the UNC EFC participated in the summer EFAB meeting in San Francisco, California.

EPA Drinking Water Capacity Development Workshop 2005

This workshop, held in Atlanta at the end of summer, involved Regions 1, 2, 3, and 4. More than 70 representatives from EPA, state agencies, and other organizations involved in assisting water systems with capacity development attended the workshop. EFC Director Jeff Hughes presented on the topic of “Challenges to Applying Asset Management at the System Level” during one of the plenary sessions. EFC UNC staff also led the entire group of participants in a small-group case study exercise on “Assessing Community Capacity Development Needs.”

Joint Southeastern Stormwater Management and Erosion and Sediment Control Conference

Staff from the new UNC EFC satellite office in Atlanta made a presentation on financing local government stormwater programs.

Direct Technical Assistance

Brightwater, North Carolina. The EFC is working with the Brightwater community in North Carolina to improve a failing water system. Thus far, this work has involved a series of phone calls, a cash flow analysis, and a visit to the neighboring town of Hendersonville. Conversations with Hendersonville are underway with the goal of the town partnering with Brightwater on a new water system.

Laurel Park, North Carolina. The EFC is working with this community to expand its sewer system. Using material from its existing water leadership notebook, the EFC has been meeting with town and board officials of Laurel Park to lay out funding options for the expansion.

Orange Water and Sewer Authority (OWASA), Carrboro, North Carolina. The EFC assisted the OWASA utility with the selection of a new consultant to carry out an innovative rate study.

Water and Sewer Authority of Cabarrus County (WSACC), North Carolina. The Water and Sewer Authority of Cabarrus County is one of North Carolina’s largest regional sewerage providers. Work with the authority has been an extended project, wherein the EFC has had several meetings to provide guidance to WSACC in reexamining elements of its governance structure and financial policies. The EFC presented interview results and reports to the WSACC board this quarter.

Camden County, North Carolina. The UNC EFC has worked with Camden County on landfill franchise issues. This work has involved legal research and an assessment of the legality of their landfill franchising process.

Polk County, North Carolina. The EFC has been working with Polk County on landfill availability fee issues. The EFC produced a letter to the county attorney.

Nags Head, North Carolina. In the last quarter of the year, the UNC EFC has been working with the town of Nags Head to develop a draft proposal for an innovative finance program for failing septic systems.

Navassa, North Carolina. In October, the UNC EFC developed a rate study and business plan for the town of Navassa.

Watauga Region Governments. In November, EFC Director Jeff Hughes facilitated a work session for three local governments and a state university that want to work together on a regional water and sewer initiative.

ACTIVITIES & ACCOMPLISHMENTS

OTHER PRESENTATIONS, CONFERENCES AND MEETINGS

- Western North Carolina Stormwater Working Group, January 28, 2005, Asheville, North Carolina.
- American Water Works Association National Source Water Protection Conference, January 25, 2005. Palm Beach, Florida.
- Environmental Financial Advisory Board Meeting, March 14–15, 2005, Washington, D.C. Participated in the annual EFAB winter meeting and small group work sessions. Washington, D.C.
- Environmental Finance Center Network Meeting, March 15–16, 2005. Washington, DC
- Environmental Law for New City and County attorneys, April 1, 2005, Chapel Hill, NC. EFC presented a two-hour session on cleanup liability issues and brief overview of stormwater Phase II to 50 attendees.
- UNC School of Government, MPA Graduate Capstone Presentation on disadvantaged community programs, April 8, 2005 and on solid waste, April 8, 2005. The 20-minute presentations took place before an audience of approximately 30 people, including officials from the North Carolina Department of Natural Resources.
- Water Resources Research Institute (WRRI) Conference, April 15, 2005, Raleigh, North Carolina. The UNC EFC presented the results of the Appalachian Regional Commission Water and Sewer Infrastructure Needs Study.
- AWWA Finance and Management Meeting, April 15, 2005, presentation to AWWA Finance Committee on the EFC rate survey project.
- Georgia water resources presentation, April 27, 2005, Athens, Georgia. Presentation of EFC capabilities to other funding agencies and communities.
- Urban Water Consortium, June 9, 2005, Wilmington, North Carolina. Presentation of North Carolina rates model.
- National Air & Waste Management Association Annual Conference, June 21–23, 2005, Minneapolis, Minnesota. Presentation before 1,500 conference attendees. The UNC EFC research assistant had an abstract published in the conference materials based on Appalachian Regional Commission Study research and thesis research.
- Council of Governments Regional Water Planning Session, June 28, 2005. Meeting to discuss methods of providing regional planning assistance to North Carolina communities.



New Initiatives

The UNC EFC initiated the following new projects during 2005:

STORMWATER MANAGEMENT COURSE

The UNC EFC designed a new School of Government course on the management and funding of local government stormwater programs. The course, titled, “Managing and Funding Local Government Stormwater Enterprises,” took place in June. The course provided local North Carolina government managers, finance directors, planners, and public works officials with an in-depth introduction to planning and funding stormwater utilities. More information is available at <www.efc.unc.edu/projects/stormwater_06_2005.htm>.

ACTIVITIES & ACCOMPLISHMENTS

STORMWATER IMPLEMENTATION GROUP (SWIG) WORKSHOPS

This is an ongoing seminar to improve the implementation of stormwater programs in North Carolina. The group consists of local and state government officials and other key persons involved in stormwater implementation. There are typically 40 individuals from approximately 20 counties at these monthly work sessions. The work sessions focus on topics involving stormwater implementation and address many questions now facing North Carolina communities about Phase II and other state stormwater programs.

NORTH CAROLINA WATER LISTSERV AND WATER OPERATORS LISTSERV

In May, the EFC created the North Carolina Water Listserv for Water Managers. The listserv has about 375 members and has been very active. The Water Operators listserv was also created with 50 members who work more specifically in the area of operations of water facilities.

NEW SATELLITE OFFICE IN ATLANTA, GEORGIA

The UNC EFC established a satellite office in Atlanta, Georgia, in June. The Atlanta EFC staff member has been building stronger relationships with organizations and communities in Georgia, Tennessee, and South Carolina.

STATEWIDE WATER & SEWER RATES SURVEY AND ANALYSIS

The UNC EFC began carrying out a comprehensive survey of water and sewer rates in North Carolina. Data from EFC questionnaires and from databases compiled by other agencies will be combined and used in EFC-designed models to project the financial impacts—at the state, utility and household levels—of different policy options and changes in consumption patterns.

WATER OPERATOR RETENTION

The UNC EFC was again successful in winning a grant from the Southeast Regional Small Public Water

Systems Technical Assistance Center (SETAC) based in Mississippi. This year's proposal involves a project to improve water operator retention and recognition, particularly focusing on the states of North Carolina and Georgia. This project will run from late 2005 to early 2007.

The UNC EFC intends to begin work in the following areas in 2006:

- Lend support to the Small Community Water Infrastructure Exchange (SCWIE) in an effort to enhance cooperation between state funding programs for utilities.
- Assist/present at the South Carolina Rural Communities Assistance Partnership (RCAP) Economic Development and Wastewater Management workshop in Columbia, South Carolina.
- Make presentations to between 800 and 1,000 elected officials on issues related to managing water resources at the North Carolina Essentials of Government Program.
- Promote best practices in retaining water operators, especially for Georgia and North Carolina.
- Prepare an Environmental Funding Matrix for the state of Georgia.
- Research water and sewer rate data for Georgia communities and municipalities.
- Address the areas of education materials, management, and full cost pricing as they relate to sustainable infrastructure.

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PERFORMANCE MEASURES

Outcomes

As a result of the activities and accomplishments outlined in the previous section, outcomes have included the following:

VERBAL FEEDBACK

Stormwater Management Course

Participants of the “Managing and Funding Local Government Stormwater Enterprises” course that took place in June provided the following remarks in the written evaluations of the course:

- “Very informative, enjoyed the presentations and meeting others in the state with similar issues, and those who have already implemented programs.”
- “Good information, a lot of resources, and good clarification of data”.
- “Extremely good course of instruction. Excellent speakers all around. I will look forward to more of this type of education. Excellent effort.”
- “Excellent course that pulls together all the elements. Really helped to bring focus to the issue of stormwater.”

One county waste department sent the following in a note to the UNC EFC: “The specialized financial assistance provided by the EFC has been invaluable in our efforts to provide accurate and reliable financial information and policy advice to the Board of County Commissioners. The EFC’s expertise in governmental financing has resulted in several recommendations regarding financial assumptions and responsible financial management practices for enterprise funds.”

Regarding the Resource Enhancement project for the North Carolina Division of Marine Fisheries, a state official described the report as “helpful in providing a non biased view of the situation.”

AWARDS

- The UNC EFC was again successful in winning a grant from the Southeast Regional Small Public Water Systems Technical Assistance Center (SETAC).
- Recognition Award Graduate Poster—presented by the North Carolina Water Resources Association Board for the EFC poster titled, “Water and Sewer Needs and Capital Finance Strategies in North Carolina’s Appalachian Region.”
- Bryan Fellowship Award—for an EFC research assistant to conduct a project titled, “Financial Management Assistance for Low-Income Communities” in Brunswick County, North Carolina. The award was presented by the Carolina Center for Public Service.

Impacts

Specific environmental issues addressed through the EFC’s 2005 activities and accomplishments include:

- Drinking water
- Stormwater
- Source water
- Agriculture
- Environmental cleanup
- Recycling and landfills

